



Global Solar Lands U.S. Army Contract

TUCSON, Ariz.--(BUSINESS WIRE)--March 23, 2000--Global Solar Energy is finalizing a nearly half-million dollar contract to provide the U.S. Army with solar-powered electric generating systems.

The systems utilize Global Solar's unique lightweight solar material to complement diesel generators that provide power for radios, battery chargers and other troop equipment in the field.

The Army is ordering 10 generating arrays which consist of more than 50 solar collector modules, each measuring about 19 inches by 53 inches. Individual photovoltaic arrays produce 2.8 kilowatts of electricity when exposed to sunlight.

``The U.S. Army is taking advantage of the unique features of Global Solar products," said James S. Pignatelli, chief executive officer and president of UniSource Energy Corp. (NYSE:UNS - news), majority owner of Global Solar. ``Our solar power generation systems are silent, produce no pollutants and are more cost-effective than diesel.

``We are pleased by the Army's confidence in using our products for critical military operations. This reinforces our company's strategic decision to focus on commercialization of consumer-based energy technologies."

Background:

From its Tucson production headquarters, Global Solar manufactures a thin-film photovoltaic material. Unlike traditional solar panels that are heavy, fragile, and rigid, Global Solar's thin-film solar modules are lightweight, durable, and can be incorporated into flexible products.

Global Solar's current production is focused on manufacturing unique lightweight and flexible solar modules including its foldable Portable Power Pack(TM). These products can be used for a variety of Defense Department and non-military applications.

Other Global Solar initiatives are focused on fulfilling existing government contracts, supplying PV material to original equipment manufacturers (OEMs) for incorporation into products such as roofing materials, and providing lightweight modules to satisfy traditional residential and commercial applications.

Advanced Energy Technologies, Global Solar's parent company, also is developing thin-film solid state rechargeable batteries. The batteries are thinner than a human hair, tolerant of a wide range of operating temperatures, capable of being recharged thousands of times, and can be fabricated into many shapes and sizes to meet specific application requirements.

These batteries can be utilized as the active power source for microelectronics (implantable medical devices), standby power source for microelectronics (CMOS-SRAM memory devices),

and for other applications. Longer term, Global Solar intends to integrate these batteries with its CIS photovoltaic modules to offer fully self-contained and flexible power packs.

UniSource Energy Corp. owns two-thirds of Advanced Energy Technologies, which, in turn, owns all of Global Solar Energy.

UniSource Energy's other affiliates include Tucson Electric Power Co., the second largest investor-owned utility in Arizona; Nations Energy Corp., an investor in independent power projects; ION International, a newly-formed energy services consulting company; and Southwest Energy Solutions, a regional energy services company.

The other one-third owner of Global Solar Energy is ITN Energy Systems Inc., a Denver-based, privately-held research and technology development company. It specializes in advanced materials sciences, and thin-film intelligent processing to provide innovative solutions to space, energy, and environmental industries.

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